

**DWR Quarterly Status Report to the Central Valley Flood Protection on Amendments and Adoption of the 2012 Central Valley Flood Protection Plan Per Board Resolution 2012-25, Resolution 11(y)**

**August 2013 Update**

Resolution Number and Text	April Status Report	August Status Report - CVFPO Revisions for August 9 Board Mtg in shaded rows
11(e) DWR anticipates completing a draft Central Valley Flood System Conservation Strategy not later than 2014, expanding on the Conservation Framework attached to the adopted CVFPP, to describe long-term, system-wide conservation objectives and covered actions associated with the flood management system.	DWR has drafted a preliminary internal working draft of the Central Valley Flood System Conservation Strategy (Conservation Strategy) that is being reviewed within DWR. DWR is also working with an Interagency Advisory Committee on this document and is on schedule to deliver a public administrative draft of the Conservation Strategy to the Board in 2014. Additional outreach efforts are envisioned but have yet to be scheduled. Discussions are ongoing at the Coordinating Committee regarding future coordination and communication.	check with FESSRO
11(f) Pursuant to CWC § 9620(c), DWR will prepare a recommended schedule and funding plan in 2013 to implement the recommendations of the adopted CVFPP, and DWR, by December 31, 2012, will brief the Board as to how it intends to collaborate with local, state and federal agencies on the development of the recommended schedule and funding plan.	Subsequent to adoption of the Board's resolution, state-wide interest in Integrated Water Management has grown that considers flood management, environmental protection/ecosystem restoration, and water management objective as an integrated whole to promote sustainable state-wide management of water resources. As part of this approach, funding decisions by state agencies should support the State's Integrated Water Management policy. As a result, DWR is currently reassessing funding priorities to address and implement this policy. On April 3, 2013, the Water Education Foundation and DWR, in partnership with the California Water Commission, will sponsor an Integrated Water Management summit to address the opportunities and challenges of integrated water management and to launch the new Water 360 initiative, a campaign to promote a vision of integrated water management across the state. A key component to this activity will be a discussion on funding, including likely reshaping of the existing water bond.	Since adoption of the CVFPP, DWR has allocated the remaining available bond funds to support the continued implementation of the Central Valley Flood Protection Plan. DWR anticipated that all funds would be obligated through various funding programs for local agency implementation and for DWR-initiated implementation actions (including continued planning and other assistance activities). Funding guidelines would be released as they are prepared, some have already issued and fund has provided (e.g., Regional Flood Management Planning, and Flood System Repair Program). As stated in the 2012 CVFPP, implementing all the recommended actions requires additional long-term sustainable funds, of which the feasibility and schedule are under evaluation by local agencies through Regional Flood Management Planning and State's finance planning to support integrated water management. In responding to the growing interest in integrated water management approach, DWR initiated a new campaign Water 360 initiative in collaboration with Water Education Foundation and California Water Commission in April 2013. The same principle is followed in the ongoing discussion on potential water bond initiative. As more definite outcomes become available, DWR will update the report.
11(g) DWR intends to provide funding, to be cost shared by local agencies, to implement urban, small community, and rural levee repairs and improvements consistent with the adopted CVFPP.	DWR is providing funding through several programs to implement urban, small community, and rural levee repairs and improvements consistent with the adopted CVFPP. The Early Implementation Program (EIP) continues to implement urban flood improvements. The Small Erosion Repair Program (SERP) was established to address small levee repairs on levees maintained by DWR within the Sacramento River Flood Control Project (SRFCP) area. Phase 1, the initial 5-year effort, is currently underway and will address approximately 306 miles of state maintained levees. Guidelines are currently being developed for the Urban Flood Risk Reduction Program (to replace the EIP Program) with a program goal to reduce urban flood risks, the Small Community Flood Risk Reduction Program to achieve 100-year flood protection for small communities through both structural and non-structural means, the Flood Risk Reduction Evaluation and Study Program to evaluate flood risk reduction alternatives by expediting federal studies and performing State and local studies, and the Flood System Repair Project, which will address deficiencies in SPFC facilities. Flood System Repair Project guidelines have been posted for public review and comment on the FloodSAFE website. Final guidelines are expected to be available in June, 2013. Further updates on other program implementation schedules will be provided as they are developed.	
11(h) DWR, in coordination with the Board, USACE, local agencies and the public will initiate State-led basin-wide feasibility studies for the Sacramento and San Joaquin River Basins (in time to inform the 2017 CVFPP update) to evaluate and refine the conceptual system improvement elements described in the adopted CVFPP, including bypass expansions and new bypasses, and evaluate appropriate regional plan elements at the system-wide level. These are likely to include the formation of one or more working groups to identify potential implementation challenges and solutions, potential effects on local and regional land uses and economies, and specific multibenefit objectives for system elements.	Two basin-wide feasibility studies, the Sacramento River Basin Feasibility Study and the San Joaquin River Basin Feasibility Study, were initiated in September 2012. Work on both studies is progressing. How to communicate and coordinate study activities continues to be a topic of discussion at monthly Coordinating Committee meetings.	Two basin-wide feasibility studies, the Sacramento River Basin Feasibility Study and the San Joaquin River Basin Feasibility Study, were initiated in September 2012. DWR has completed its first workshop on objectives. Work on both studies is progressing, with the current focus on problem definition. The communication and engagement for basin-wide feasibility studies will leverage existing established venues and opportunities, including the Board's Coordinating Committee, venues established by RFMP efforts, Water Plan and other processes. Work groups and other venues will be established as necessary, in collaboration with the Board.
11(i) In conducting post-adoption implementation activities associated with the adopted CVFPP, DWR will work with the Board on other ongoing projects and programs in the Central Valley to identify mutual objectives, complementary project elements, and improve the efficiency of outreach and engagement with stakeholders and the public.	DWR meets regularly with the Board, in a variety of forums, to coordinate implementation of the CVFPP. DWR updates the Board at the regularly scheduled monthly informational public Board meeting. DWR participates in a monthly Coordinating Committee and also in the Coordinating Committee Steering Committee. In addition, an executive-level meeting between the Board's President and DWR's Executive Management and respective staff occurs on a monthly basis. The Board has also received project specific briefings when requested or as necessary to inform the Board of significant issues, funding requests, or change in project status. Members of the Board as well as Board staff are also invited to program level meetings on CVFPP Implementation activities hosted by DWR.	DWR meets regularly with the Board, in a variety of forums, to coordinate implementation of the CVFPP. DWR updates the Board at the regularly scheduled monthly informational public Board meeting. DWR participates in a monthly Coordinating Committee and also in the Coordinating Committee Steering Committee. In addition, an executive-level meeting between the Board's President and DWR's Executive Management and respective staff occurs on a monthly basis. The Board has also received project specific briefings when requested or as necessary to inform the Board of significant issues, funding requests, or change in project status. CVFPP has regular discussions with Board staff and Board members for continuous coordination and for addressing specific concerns. Where appropriate, or upon request, DWR has included Board staff and Board member(s) in meetings and other engagements.
11(j) DWR will continue to make investments in new data, analysis tools, and system-wide benefit policies to support refinement of the physical elements of the adopted CVFPP, and assess the feasibility of project-specific implementation actions and local planning efforts.	To support implementation of the State System-wide Investment Approach detailed in the CVFPP, DWR continues investing in new data, tools, and system-wide policies, as discussed below:  • A Library of Models has been developed to provide other agencies with access to all FloodSAFE models to reduce duplication of effort and ensure the most current models are available for use and analysis. • Flood Forecasting has been enhanced by expanding a variety of hydro-meteorological monitoring efforts that also support improved reservoir operations and further understanding of climate and climate change. • Inspection and documentation of the State-Federal Flood Control System is ongoing and updated annually. • The annual inspection of the levees, channels, and structures of the SPFC has been streamlined and modernized with geo-referenced data and maps and by improved coordination with local maintaining agencies. • Forecast- Coordinated Operations to reduce peak downstream flood flows is ongoing and is expanding from the Yuba-Feather Basin to flood control reservoirs in the San Joaquin Valley. • Improving data exchange is an ongoing, continuous process. The development of the FERIX (Flood Emergency Response Information Exchange) system to facilitate exchange of information among flood agencies, local levee maintaining agencies, reservoir operators, etc. is complete and the system has been implemented. • Enhancement of Flood Emergency Response Incident Command Teams is ongoing with three new teams added and updated equipment and resources improved for all teams. • Data acquisition under the Central Valley Topography Acquisition Project is complete with the exception of a small area in the Delta where a datum error has been identified, which is anticipated to be corrected by April 2013. Data obtained includes Digital Aerial Photography (9,000 square miles), Initial Post-Processed LIDAR (7,800 square miles), Final Post-Processed LIDAR (5,700 square miles), and bathymetric and field surveys (5,500 cross sections). DWR is releasing approved DAP and Final Post-Processed LIDAR to local, state and federal agencies. • Work on the Central Valley Hydrology Study, a partnership study with USACE, to update stream flow frequencies and magnitudes for rivers and streams in the Sacramento and San Joaquin basins is ongoing. • Work on the Central Valley Hydraulic Evaluation Project to update hydraulic models for Central Valley rivers and streams to support local, regional, and basin-wide flood planning efforts, and new emergency response applications including enhanced river stage forecasting is anticipated to be completed by July 2013. • Geotechnical assessment of the Central Valley levees is ongoing and program status is updated monthly in the DWR report to the Board. • Floodplain mapping under the Central Valley Floodplain Delineation Project is anticipated to be completed by July 2013. The project will provide Urban 200-year SPFC informational floodplain maps for the urban communities of Chico, Yuba City, Marysville, Davis, Woodland, West Sacramento, Sacramento, Stockton, Lathrop, and Merced. • Development of Levee Flood Protection Zones (LFPZ) Maps, to provide an initial level of awareness to property owners protected by SPFC levees, is complete for 2,205 square miles of land in 17 counties in the Central Valley protected by SPFC levees. • Awareness Floodplain Mapping, 100-year advisory (non-regulatory) flood event maps for areas in the state expected to have some development in the next 25 years, is complete with mapping of 26,500 river miles. • The Building Standards Code updates for areas protected by SPFC facilities where flood levels are anticipated to exceed 3 feet for a 200-year flood event were unanimously adopted by the California Building Codes Commission and cities are currently adopting the codes voluntarily. • Community Assistance Visits are ongoing with more than 260 community assistance visits and 128 local floodplain management training workshops conducted to date. • Flood Risk annual notification is ongoing with written flood risk notices mailed annually to property owners of more than 350,000 distinct properties in 2010, 2011, and 2012. This notification is unique in that it utilizes both GIS information about local flood risks and county assessor parcel databases to produce notices that are targeted to and provide specific local flood risk information for each parcel.	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DWR is releasing approved DAP and Final Post-Processed LIDAR to local, state and federal agencies. • Work on the Central Valley Hydrology Study, a partnership study with USACE, to update stream flow frequencies and magnitudes of the Sacramento and San Joaquin rivers and major tributaries. • Work on the Central Valley Hydraulic Evaluation Project to update hydraulic models for Central Valley rivers and streams to support local, regional, and basin-wide flood planning efforts, and new emergency response applications including enhanced river stage forecasting is anticipated to be completed by July 2013. • Geotechnical assessment of the Central Valley levees is ongoing and program status is updated monthly in the DWR report to the Board. • Floodplain mapping under the Central Valley Floodplain Delineation Project is anticipated to be completed by July 2013. 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This notification is unique in that it utilizes both GIS information about local flood risks and county assessor parcel databases to produce notices that are targeted to and provide specific local flood risk information for each parcel. • DWR is preparing documentation for economic benefit assessment procedures applicable to multi-benefit flood management improvement projects.

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<p>11(o) DWR will conduct additional analyses to evaluate the effects of climate change and the effectiveness of various flood system improvements proposed in the SSIA to accommodate future changes in hydrology and sea level rise, for use in the basin-wide feasibility studies.</p>	<p>DWR is currently working with climate change experts, both internally within DWR and in the larger scientific community, on improving long-term predictions of precipitation patterns and on how to analyze and incorporate the predictions in CVFPP planning studies. In addition, Urban Levee Design Criteria provides for flexibility of designing levees with an additional foot of freeboard, and EIP Guidelines requires evaluating setback levees when feasible, which allows for additional capacity for the floodway.</p>	<p>Suggest not mentioning ULDC criteria or EIP criteria. They are not relevant information on this topic.</p> <p>DWR is currently working with climate change experts to advance the knowledge of atmospheric rivers, a phenomenon correlates well with historical California floodings, with findings scheduled to be available in late 2014. The new information will help to bridge the gaps of current understanding in atmospheric river intensity changes under climate change conditions. In addition, DWR expanded the promising new methodology developed in collaboration with climate change experts for the 2012 CVFPP to perform initial exploratory studies on the physical vulnerability of the Sacramento River flood management system. Additional refinements on the vulnerability analysis are scheduled to assist in formulating the future conditions for the BWFS; the outcomes of the vulnerability could also provide additional information for regional planning purposes. DWR has provided a briefing in July 2013 on climate change study development progress.</p> <p>In addition, DWR has commissioned the National Research Council to review the sea level rise projection; the results became available in June 2012 and documented in the report entitled "Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future." Based on the sea level rise information, DWR has revised the downstream boundary conditions that would be used for flood system hydraulic studies, which DWR is also updating with the new hydraulic modeling tools developed in the Central Valley Floodplain Evaluation and Delineation Program.</p>
<p>11(p) The proposed CVFPP includes the Folsom Dam Joint Federal Project, the Folsom Dam Water Control Manual Update Project, the Folsom Dam Raise Project, the Yuba-Feather Rivers Joint Project for Forecast Coordinated Operations (FCO), and FCO for other reservoirs. These projects will have the effect of increasing and / or improving the use of the reservoir storage space for flood management. In addition to these projects, DWR will: (1) consider reservoir reoperations, expansions or modifications, including those proposed by local or regional entities; and (2) continue to consider flood management as an objective of its ongoing multi-benefit surface storage investigations and system-wide reoperation studies. Should these related DWR efforts identify flood management as a component of a feasible reservoir storage project, such project may be proposed for implementation under the adopted CVFPP and / or may be reflected in future updates to the</p>	<p>DWR is actively participating in the update of the Folsom Dam Water Control Manual in coordination with the USACE and National Weather Service. DWR is analyzing and developing operational parameters to incorporate forecasts and upstream conditions. Public outreach and collaboration is ongoing under the direction of the USACE. DWR will include proposed reservoir reoperations, expansions, or modifications within the Central Valley that could affect the CVFPP, as they become potentially viable options. Ongoing enhancement of the Yuba-Feather Forecast-Coordinated Operations is ongoing as is development of the San Joaquin Forecast-Coordinated Operations (see 11(n) above). Flood management is currently, and will continue to be, included as an objective in multi-benefit surface storage investigations and system-wide reoperation studies.</p>	
<p>11(q) DWR will continue to provide guidance, criteria, data, analyses and technical support to assist cities and counties in making findings related to the urban level of flood protection and related land use planning requirements that come into effect upon adoption of the CVFPP to assist them to meet their statutory deadlines. The Board encourages DWR to provide preliminary 100- and 200-year floodplain mapping of areas protected by SPFC facilities to cities and counties by July 1, 2013 to allow cities and counties to meet their statutory deadlines.</p>	<p>DWR established workgroups to develop two documents, Urban Level of Design Criteria (ULDC) and Urban Level of Flood Protection (ULOP), to assist cities and counties in meeting their statutory requirements and deadlines. ULDC was final as of May 21/02 and the first draft of the ULOP was released in April 2012. Additional work group meetings have begun to refine the ULOP document. A revised agency review draft of the ULOP is expected to be released in summer 2013 with the final ULOP expected by the end of 2013. An outreach strategy for both ULDC and 200-year maps is currently under development. The need for others to supplement DWR's efforts is envisioned. DWR continues to progress the development of 200-year floodplain mapping for areas protected by SPFC facilities with the intent of providing draft maps to cities and counties by July 2013.</p>	<p>Please do note the mistake in referring ULDC (Urban Levee Design Criteria) in the original response. Suggest modifying the information for accuracy and focus.</p> <p>DWR has completed the Urban Levee Design Criteria (ULDC) in May 2012, and a draft Urban Level of Flood Protection (ULOP) Criteria in April 2012. ULDC is engineering criteria that is incorporated by reference in the ULOP Criteria where levees and floodwalls are used for providing urban level of flood protection (200-year level of protection). Subsequent Senate Bill 1278 and Assembly Bill 1965 of 2012 amend the original Senate Bill 5 of 2007 to clarify certain aspects of the 2007 legislation, and to amend some of the milestone dates and time frames included in the original legislation. In addition, SB 1278 requires DWR to provide information maps for the 200-year floodplain in urban areas from the Sacramento and San Joaquin river systems due to the failure of State Plan of Flood Control facilities by June 2, 2013. DWR has completed the draft information maps in June 2013 and made available to 10 urban areas in the Central Valley. DWR is conducting additional coordination with cities and counties on map review and potential applications.</p> <p>In response to the legislation amendments and associated changes, DWR has reinitiated a work group process to refine the Urban Level of Flood Protection Criteria. The newly formed Urban Level of Flood Protection Criteria includes participants from cities and counties, planning professionals, floodplain managers, environmental interests, and Board members and staff. The criteria refinements are in progress. As a separate effort, DWR also initiated efforts to develop model languages that could provide references for cities and counties when updating their General Plan per legislation requirements.</p>
<p>11(r) Studies and analyses that result from implementation of the adopted CVFPP will be included in the 2017 update of the CVFPP and will be shared with the USACE to be considered in its Central Valley Integrated Flood Management Study scheduled for release at the same time, consistent with the State's goal to maximize federal and local cost sharing.</p>	<p>DWR and USACE staffs continue to coordinate planning efforts. As part of the new 3x3x3 process, USACE is reevaluating and re-scoping current projects. This, as well as federal funding constraints, hamper USACE efforts and leave in doubt the final work product to be developed as a part of the federal effort. DWR and USACE have partnered in the development of the Central Valley Hydrology Study, a comprehensive assessment of stream flow frequencies and magnitudes in the Sacramento and San Joaquin river basins. The goal of the study is to estimate peak flows and hydrographs for various probabilities to describe flood hazards throughout the Central Valley.</p>	<p>DWR worked closely with USACE to rescope the Central Valley Integrated Flood Management Study (CVIFMS) consistent with USACE planning modernization guidance; a revised Feasibility Cost Share Agreement for CVIFMS was prepared and placed on the Board's consent calendar in July. The revised FCSPA for CVIFMS encompasses a 3-year, \$5 million watershed study (a briefing was made to the Board at the 7/12/2013 meeting). DWR and USACE staffs continue to coordinate planning efforts, including ongoing federal cost share feasibility studies. DWR and USACE have partnered in the development of the Central Valley Hydrology Study, a comprehensive assessment of stream flow frequencies and magnitudes in the Sacramento and San Joaquin river basins. The goal of the study is to estimate peak flows and hydrographs for various probabilities to describe flood hazards throughout the Central Valley.</p>
<p>11(s) DWR will sponsor regional flood management planning efforts which will develop regional plans that present stakeholder perspectives of flood management priorities for each region, the results of which will be coordinated between regions and integrated into or consistent with the basin-wide plans. Regional planning should create a role for all interested stakeholders including representatives from agricultural, city and county, conservation, environmental, landowner, and water supply interests as well as the flood control agencies and organizations.</p>	<p>Funding Agreements have been executed between DWR and all six local agencies involved in regional flood management planning. The agencies have begun work, and have submitted invoices. Five invoices have been processed by the State. The sixth invoice, from the Sutter-Butte Flood Control Agency, which represents the Feather River region, is being processed by DWR. Currently all regional plans are on schedule to be completed by mid-2014, and within the allotted budget.</p>	<p>RFMP local lead agencies have initiated their planning process and are actively engaging with local stakeholders and the State-led Basin Wide Feasibility Studies and Conservation Strategy. Coordination and engagement to date has been through informal small meetings, public outreach meetings, and active attendance at the Board's Coordinating Committee. Integration of the regional and systemwide planning efforts has been initiated through the development of a common Problem Summary Statement, where collaboration and information sharing have served as the vehicle for integration. More collaborative efforts are planned for each of the major planning process steps.</p>
<p>11(t) For those deliverables and processes set forth in items (a) through (x) above, it is understood that DWR shall provide quarterly reports to the Board regarding schedules and progress.</p>	<p>This report provides an update on information regarding schedules and progress related to SSIA implementation and is a summary of information presented in DWR's monthly reports to the Board and in project specific briefings made to the Board. In the future, this report will be updated monthly and appended to DWR's monthly report to the Board.</p>	